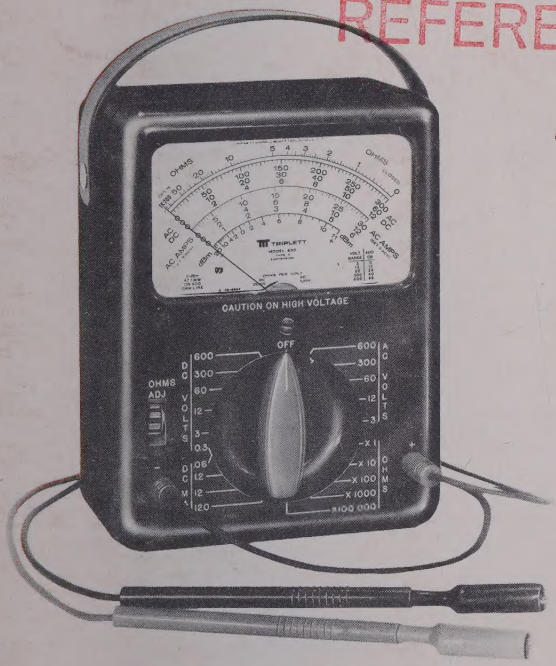
REFERENCE



MODEL 630 TYPE 4 AND MODEL 630-A TYPE 4

VOLT-OHM-MILLIAMMETER

TRIPLETT

INSTRUCTION MANUAL

REFERENCE

SAFETY IS NO ACCIDENT

WARNING

This tester has been designed with your safety in mind. However, no design can completely protect against incorrect use. Electrical circuits can be dangerous and/or lethal when lack of caution or poor safety practices are used.

READ THE MANUAL

Read this Instruction Manual carefully and completely.

Voltages and currents within the capability of this test equipment can be hazardous. Follow the instructions in this manual for every measurement. Read and understand the OPERATING INSTRUCTIONS before attempting to use this tester. Do not exceed the limits of the tester.

SAFETY CHECK

Double check the switch setting and lead connections before making measurements. Are you following all of the instructions?

Disconnect the tester or turn off the power before changing switch positions.

Do not connect to circuits with voltage present when switch is in any ohms or current position.

When replacing fuses use only specified type fuses and insert in correct fuse holder.

DON'T TOUCH

Don't touch exposed wiring, connections or other "live" parts of an electrical circuit. If in doubt, check the circuit first for voltage before touching it.

Turn off the power to a circuit before connecting test probes to it. Be sure there is no voltage present before you touch the circuit.

Do not use cracked or broken test leads.

HIGH VOLTAGE IS DANGEROUS

Always start with the power off. Be sure there is no voltage present before making connections to the circuit.

Don't touch the tester, its test leads, or any part of the circuit while it is on.

Before disconnecting the tester, turn the circuit off and wait for the meter to return to "zero".

DISTRIBUTION CIRCUITS PACK A PUNCH

In high energy circuits such as distribution transformers and bus bars, dangerous arcs of explosive nature can occur if the circuit is shorted. If the tester is connected across a high energy circuit when set to a low resistance range, a current range, or any other low impedance range, the circuit is virtually shorted.

Special equipment designed for use with these circuits is available. Contact a qualified person for assistance before attempting to make measurements on any high energy circuit.

SAFETY IS NO ACCIDENT

TABLE OF CONTENTS

INTRODUCTION 3
DESCRIPTION 3
SPECIFICATIONS 6

OPERATING INSTRUCTIONS 10
CONTROLS AND CONNECTIONS 10
GENERAL PROCEDURES 12
READING THE DIAL 13
PARALLAX CORRECTION 14
HIDDEN ERRORS 14
TYPICAL USES 15
DC VOLTAGE MEASUREMENTS 16
DC CURRENT MEASUREMENTS 17
AC VOLTAGE MEASUREMENTS 18
OUTPUT VOLTAGE MEASUREMENTS 19
DECIBEL MEASUREMENTS 20
RESISTANCE MEASUREMENTS 22
CONTINUITY TESTING 23

MAINTENANCE 24
BATTERY REPLACEMENT 24
FUSE REPLACEMENT 24
CLEANING 25
CALIBRATION 25
PARTS REPLACEMENT 25
TROUBLESHOOTING GUIDE 26
SCHEMATIC DIAGRAM 27
PARTS LOCATION DIAGRAM 28
PARTS LIST 29

ACCESSORIES 31

LIMITED WARRANTY . . . . . INSIDE BACK COVER

TRIPLETT CORPORATION
BLUFFTON, OHIO 45817

Printed in U.S.A. Part No. 84-296C

INTRODUCTION

This book contains instructions for operating and maintaining the Triplett Model 630 and Model 630-A V-O-Ms. The specifications, instructions, and other data in this book apply to both models unless specifically stated otherwise.

DESCRIPTION

The Triplett Model 630 and Model 630-A V-O-Ms are multirange portable analog electrical instruments that measure AC voltage, DC voltage, DC current, resistance, and decibels. These V-O-Ms have a single selector switch and only two input jacks to reduce the chance of error in using them. The glass window and black plastic case resist damage from abrasion, hot soldering irons and many solvents. The low resistance range is designed for troubleshooting low resistance control circuits and motors. A special AC AMPS scale on the dial allows direct reading of AC current with the accessory Model 10 AC Clamp-on Ammeter. A special 600 volt fuse in the input circuit reduces the chance of accidental damage to the V-O-M. The self-shielded suspension meter movement allows accurate repeatable measurements by eliminating friction and preventing external magnetic fields from influencing the measurement.

The Model 630-A V-O-M allows more accurate measurements on the DC voltage, DC current, and resistance ranges. Resistors used on these ranges are more accurate and the mirror behind the dial helps eliminate parallax errors.

Figures 1 and 2 show the Triplett Model 630 and Model 630-A V-O-Ms.

FIGURE 1. TRIPLETT MODEL 630 TYPE 4 V-O-M

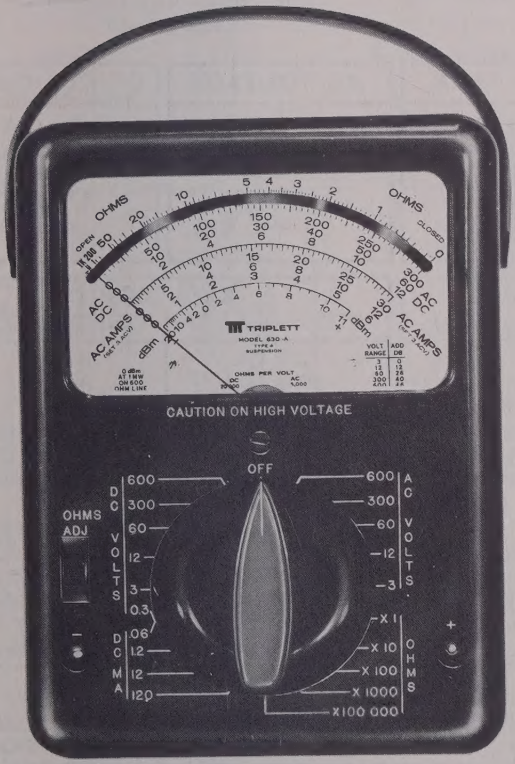


FIGURE 2. TRIPLETT MODEL 630-A TYPE 4 V-O-M

SPECIFICATIONS

Ranges:

DC VOLTAGE	AC VOLTAGE	DC CURRENT
0.3 V	3 V	0.06 mA
3 V	12 V	1.2 mA
12 V	60 V	12 mA
60 V	300 V	120 mA
300 V	600 V	
600 V		

DECIBELS (1 mW, 600 Ω)	RESISTANCE	
	FULL SCALE	CENTER SCALE
-20 to +11 dBm	1 kΩ	4.4 Ω
- 8 to +23 dBm	10 kΩ	44 Ω
+ 6 to +37 dBm	100 kΩ	440 Ω
+20 to +51 dBm	1 MΩ	4.4 kΩ
+26 to +57 dBm	100 MΩ	440 kΩ

Accuracy (at 25° C):

		630	630-A
DC Voltage	Percent of full scale	±2%	±1 1/2%
AC Voltage	Percent of full scale	±3%	±3%
DC Current	Percent of full scale	±2%	±1 1/2%
Resistance	Percent of scale length	±2%	±1 1/2%

Ohmmeter Specifications:

RANGE	MAXIMUM VOLTAGE	MAXIMUM CURRENT	MAXIMUM POWER TO LOAD
X1	1.7 V	386 mA	164 mW
X10	1.7 V	38.6 mA	16.4 mW
X100	1.7 V	3.86 mA	1.64 mW
X1000	1.7 V	386 μA	164 μW
X100K	35.7 V	81.1 μA	724 μW

Sensitivity:

DC Voltage (3 volts and above): 20,000 ohms per volt
(0.3 volts): 16,667 ohms per volt

AC Voltage: 5,000 ohms per volt

Input Impedance:

RANGE	IMPEDANCE	FULL SCALE CURRENT OR VOLTAGE
0.3 DC V	5 k Ω	60 DC μA
3 DC V	60 k Ω	50 DC μA
12 DC V	240 k Ω	50 DC μA
60 DC V	1.2 M Ω	50 DC μA
300 DC V	6 M Ω	50 DC μA
600 DC V	12 M Ω	50 DC μA
3 AC V	15 k Ω	200 AC μA
12 AC V	60 k Ω	200 AC μA
60 AC V	300 k Ω	200 AC μA
300 AC V	1.5 M Ω	200 AC μA
600 AC V	3 M Ω	200 AC μA
0.06 DC mA	5 k Ω	300 DC mV
1.2 DC mA	208 Ω	250 DC mV
12 DC mA	21 Ω	250 DC mV
120 DC mA	2.4 Ω	290 DC mV

Temperature Influence:

The meter movement has a temperature coefficient of less than +0.1%/°C without any special compensation devices. Resistors have a temperature coefficient of less than ±150 PPM/°C. This allows a temperature influence of less than ±0.025%/°C on the resistance ranges and all DC voltage ranges except the 0.3 volt range. Typical temperature influence on the DC current ranges and the 0.3 DC volts range is shown in Figure 3. Typical temperature influence on the AC voltage ranges is shown in Figure 4.

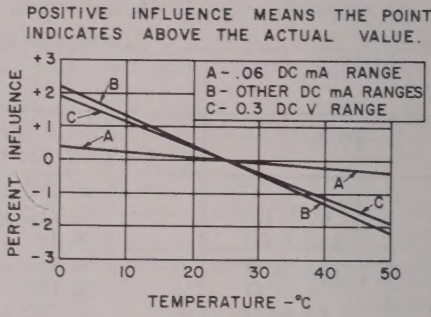


FIGURE 3. DC TEMPERATURE INFLUENCE

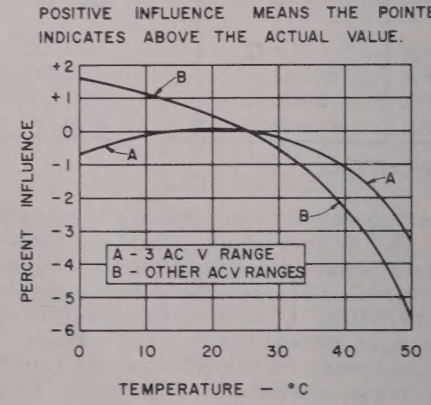


FIGURE 4. AC TEMPERATURE INFLUENCE

Frequency Response:

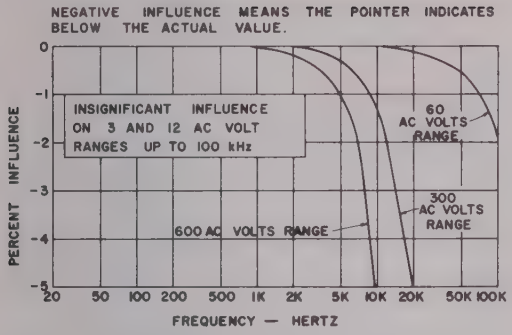


FIGURE 5. FREQUENCY RESPONSE

Meter Movement:

50 μA, 250 mV self-shielded BAR RING suspension movement with a silicon overload protection network.

Test Leads:

One red and one black test lead with removable insulated alligator clips, 48 inches long.

Weight:

3 1/4 pounds (1 1/2 kilograms) with batteries and test leads.

Size:

7 1/2" high x 5 7/8" wide x 2 1/4" deep (19 cm x 15 cm x 5.7 cm).

CONTROLS AND CONNECTIONS - Figure 6 shows the location of the controls and other important parts of the Triplett Model 630 and Model 630-A V-O-Ms.

DIAL - The dial is the printed panel with graduated scales for indicating the measured quantity.

SCALES - Graduated arcs printed on the dial to indicate values of voltage, current, resistance or decibels.

POINTER - The pointer, sometimes called a needle, moves across the face of the dial to indicate the value of the measured quantity. The value is always read directly behind the pointer on the dial.

ZERO ADJUSTER - A control used to adjust the rest position of the pointer.

OHMS ADJUST CONTROL - A control used to recalibrate the resistance ranges when the battery voltage changes. In normal use, battery voltage drops and the OHMS ADJUST CONTROL is adjusted each time the resistance ranges are used.

− JACK - Negative connection for all DC measurements. This jack is connected to the negative terminal of the internal batteries on the resistance ranges.

RANGE SWITCH - Used to select the range of the V-O-M.

+ JACK - Positive connection for all DC measurements. This jack is connected to the positive terminal of the internal batteries on the resistance ranges.

MIRROR - On the Model 630-A the mirror is used to eliminate parallax errors. The Model 630 does not have a mirror.

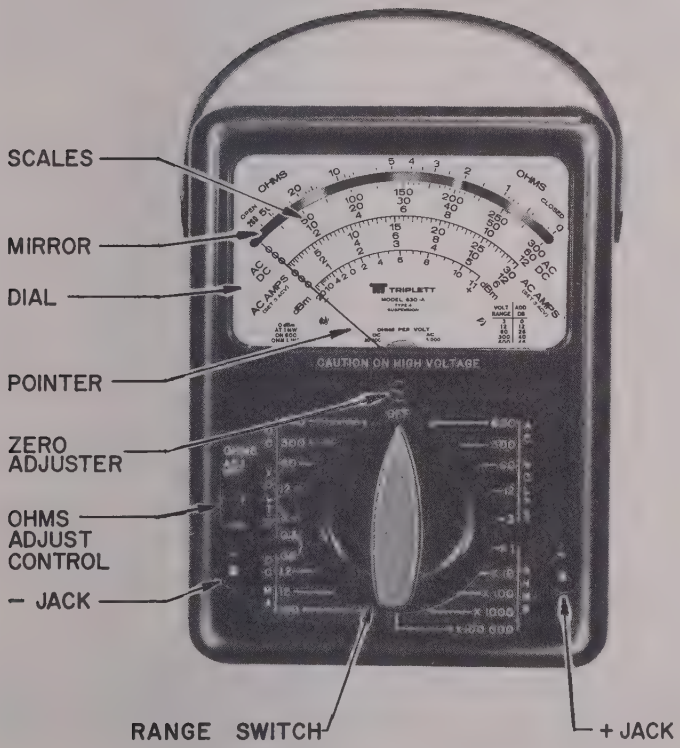


FIGURE 6. CONTROLS AND CONNECTIONS

GENERAL PROCEDURES

Check the position of the pointer with nothing connected to the jacks. If necessary, adjust the pointer to rest over the left end of the scales (0) by turning the ZERO ADJUSTER.

Choose the range that gives the most pointer deflection without going beyond the end of the scales to get the most accurate measurement.

Do not change the range switch while the V-O-M is connected to a live circuit. Disconnect the V-O-M or turn off the circuit before changing ranges.

When the approximate value of the quantity being measured is not known, ALWAYS START ON THE HIGHEST RANGE. For greater accuracy, choose the range which will allow readings to be taken in the upper (right hand) portion of the scale.

Always check the range before connecting the probes to a circuit. It may be too late afterwards.

When working around potentially hazardous circuits, put one hand in your pocket and don't lean on anything.

Do not rotate the range switch when the tester is overloaded. Remove the overload first.

The alligator clips provided with the tester fit over the end of the test probes. These alligator clips allow measurement without handling the test probes. ALWAYS SHUT OFF THE POWER source before attempting to connect alligator clips.

Check the test leads periodically. Leads that are worn, have damaged insulation, damaged plugs, damaged probes or loose parts should be replaced.

READING THE DIAL

The secret of accurate measurement is reading the dial properly. Table 1 shows the scales and numbers to use for each range.

TABLE 1. READING THE DIAL

RANGE	SCALE	NUMBERS
0.3 DC V	AC-DC	0-300 (÷ 1000)
3 DC V	AC-DC	0-300 (÷ 100)
12 DC V	AC-DC	0-12
60 DC V	AC-DC	0-60
300 DC V	AC-DC	0-300
600 DC V	AC-DC	0-60 (X 10)
3 AC V	AC AMPS	0-30 (÷ 10)
12 AC V	AC-DC	0-12
60 AC V	AC-DC	0-60
300 AC V	AC-DC	0-300
600 AC V	AC-DC	0-60 (X 10)
0.06 DC mA	AC-DC	0-60 (÷ 1000)
1.2 DC mA	AC-DC	0-12 (÷ 10)
12 DC mA	AC-DC	0-12
120 DC mA	AC-DC	0-12 (X 10)
OHMS X 1	OHMS	0-1K
OHMS X 10	OHMS	0-1K (X 10)
OHMS X 100	OHMS	0-1K (X 100)
OHMS X 1000	OHMS	0-1K (X 1000)
OHMS X 100,000	OHMS	0-1K (X 100,000)
DECIBELS	dBm	See DECIBEL MEASUREMENTS

PARALLAX CORRECTION

One source of measurement error is looking at the dial at an angle. Because there is a space between the pointer and the dial, the apparent reading can be changed by moving your head from side to side. To prevent this parallax error, it is necessary to look at the dial from directly in front of the pointer.

The Triplett Model 630-A has a mirror behind the dial to help eliminate parallax error. When reading the dial, line up the reflected image of the pointer directly behind the pointer. Then, without moving your head, read the dial.

HIDDEN ERRORS

There are errors caused by the way a V-O-M is used that are not obvious. In these cases, the V-O-M will measure what is actually present accurately; however some external influence or the V-O-M itself will disturb the circuit enough to cause an incorrect measurement. Some precautions and sources of error are listed below.

Don't touch the test leads, circuit, or component being tested when meauring resistance. Body resistance and moisture can cause large errors.

Disconnect components from their circuit when measuring resistance to prevent other parts of the circuit from disturbing the measurement.

Turn off all electrical power and discharge capacitors before measuring resistance of electrical and electronic circuits to prevent errors and possible damage to the V-O-M.

In strong alternating current fields around large

motors it may be necessary to twist the test leads together to reduce the effect of these fields.

The overload protection circuit in the meter movement can act as a rectifier in strong RF fields and cause erratic meter indications. Provide adequate shielding and filtering of the V-O-M and test leads to reduce this problem.

When making current measurements, compensate for the voltage drop across the V-O-M in critical low voltage circuit measurements.

When making voltage measurements in high impedance electronic circuits, the current drawn by the V-O-M can change operating voltages while it is connected. The specifications section of this manual gives the V-O-M impedance for all ranges to assist in analyzing loading effect on the circuit.

Some troubleshooting procedures list voltage measurements that are made with a 20,000 ohm per volt V-O-M. The effect of circuit loading is already included in these values.

TYPICAL USES

Some typical uses for a V-O-M include servicing electronic equipment, TV sets, electrical controls and electrical wiring circuits. A V-O-M is also useful for checking diodes and transistors. It can be used for automotive service. It can be used for power and RF measurements with the proper circuitry attached to it. Appliances, heating and air conditioning equipment are also serviced with a V-O-M. There are far too many special uses for a V-O-M to list them here; however many books are available from electrical and electronic distributors, mail order suppliers, hobby stores and appliance manufacturers that describe special uses of a V-O-M.

DC VOLTAGE MEASUREMENTS

1. Set the range switch to the desired DC VOLTS range.
2. Plug the test leads into the jacks.
3. Connect the test leads across the circuit to be measured. OBSERVE ALL SAFETY PRECAUTIONS.
4. Read the voltage value on the black AC-DC scale.

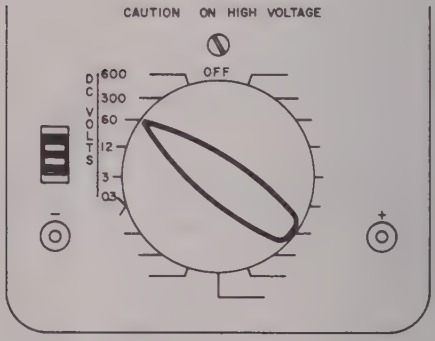


FIGURE 7. DC VOLTAGE MEASUREMENTS

DC CURRENT MEASUREMENTS

1. Set the range switch to the desired DC mA range.
2. Plug the test leads into the jacks.
3. Connect the test leads into the circuit to be measured. OBSERVE ALL SAFETY PRECAUTIONS.
4. Read the current value on the black AC-DC scale.

CAUTION: The circuit must be broken by unsoldering, cutting a wire, unscrewing a terminal or some other means. Be sure the power is OFF until the V-O-M is connected and ready for measurement.

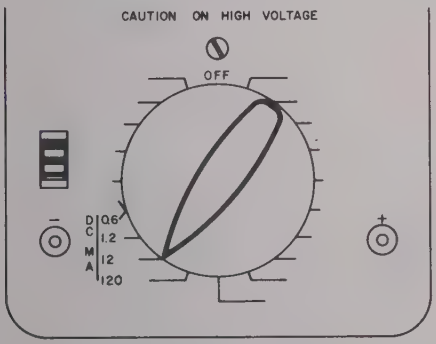


FIGURE 8. DC CURRENT MEASUREMENTS

AC VOLTAGE MEASUREMENTS

3 AC VOLTS RANGE

1. Set the range switch to the 3 AC VOLTS position.
2. Plug the test leads into the jacks.
3. Connect the test leads across the circuit to be measured. OBSERVE ALL SAFETY PRECAUTIONS.
4. Read voltage on the red 0-30 AC AMPS scale and divide the indication by 10.

12 AC VOLTS RANGE AND ABOVE

1. Set the range switch to the desired AC VOLTS range.
2. Plug the test leads into the jacks.
3. Connect the test leads across the circuit to be measured. OBSERVE ALL SAFETY PRECAUTIONS.
4. Read voltage on the black AC-DC scale.

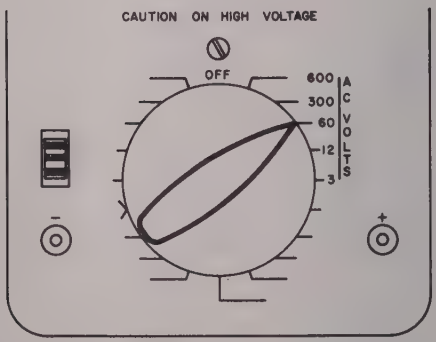


FIGURE 9. AC VOLTAGE MEASUREMENTS

OUTPUT VOLTAGE MEASUREMENTS

Occasionally it is necessary to measure the AC part of a combined AC and DC voltage. The AC voltage ranges will respond to a DC input, too. It is necessary to put a DC blocking capacitor in series with the V-O-M input terminals to "block" or eliminate the DC part of the voltage. When making OUTPUT VOLTAGE measurements, follow the instructions for AC VOLTAGE measurements, but connect one test lead to the circuit through a capacitor.

Capacitor value depends on the accuracy desired, the frequency range to be measured, and the voltage in the circuit. The voltage rating of the capacitor should be equal to or greater than the highest voltage that can be encountered in the circuit. The capacitance value should be as large as possible to reduce measurement errors, especially at low frequencies and low voltages. Figure 10 shows the influence of a .22 μF capacitor on measurements with the 3, 12, and 60 AC VOLTS ranges. The 300 and 600 AC VOLTS ranges are not effected significantly by a .22 μF capacitor.

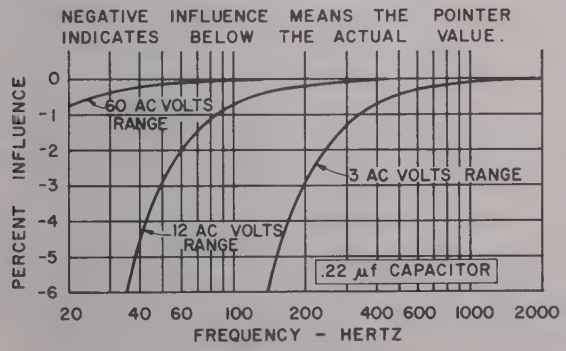


FIGURE 10. OUTPUT VOLTAGE FREQUENCY INFLUENCE

DECIBEL MEASUREMENTS

Decibels are used in communications and other fields to specify relative power levels. The decibel approximates human hearing ratios and is mathematically derived to reduce multiplication and division to addition and subtraction.

All decibel measurements are based on a reference power level. The most common reference power level and the one used in this V-O-M is 1 milliwatt into a 600 ohm load. This means that 0 dBm represents 1 milliwatt into a 600 ohm load (.775 AC volts across a 600 ohm load).

To measure decibels, follow the instructions for AC VOLTAGE MEASUREMENTS or OUTPUT VOLTAGE MEASUREMENTS. Read the dBm scale on the dial and add the number of decibels specified for the range selected. Table 2 shows the switch positions, decibel ranges and number of decibels to be added. A table showing the number of decibels to add is shown on the V-O-M dial, too.

TABLE 2 DECIBEL RANGES

RANGE SWITCH	DECIBELS	SCALE	ADD TO READING
3 AC VOLTS	-20 to +11 dBm	dBm	0 dBm
12 AC VOLTS	- 8 to +23 dBm	dBm	12 dBm
60 AC VOLTS	+ 6 to +37 dBm	dBm	26 dBm
300 AC VOLTS	+20 to +51 dBm	dBm	40 dBm
600 AC VOLTS	+26 to +57 dBm	dBm	46 dBm

For accurate decibel measurements on the 12 AC VOLTS and higher ranges, a corrective factor may be needed. The decibel scale is made to track the 3 AC VOLTS range. Because of the rectifier circuit, the 3 AC VOLTS is not linear, but the 12 AC VOLTS and higher ranges are linear. This means that the decibel scale does not track the 12 AC VOLTS and higher ranges.

Figure 11 shows the correction factor to use on the 12 AC VOLTS and higher ranges. To apply the correction factor, proceed as follows:

1. Make the measurement as specified above.
2. Read the number of decibels indicated on the dial. (Don't add anything yet).
3. From Figure 11, find the correction factor for the number of decibels indicated on the dial.
4. Subtract the correction factor from the indicated number of decibels.
5. Add the number of decibels shown in Table 2 for the range selected.

It may not be necessary to use this correction if the value is in the upper 2/3 of the scale because the error is less than 1 dB. DO NOT USE THIS CORRECTION ON THE 3 AC VOLTS RANGE. The V-O-M indicates the correct value on the 3 AC VOLTS range.

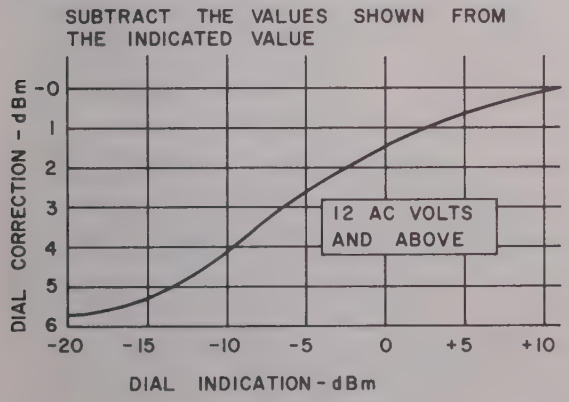


FIGURE 11. DECIBEL CORRECTION FACTOR

The Triplett Model 630 and Model 630-A V-O-Ms measure decibels referenced to 1 milliwatt into a 600 ohm load. If the load or reference power level are changed, the measurements must be converted. Table 3 lists the conversion factors for some popular references for decibel measurements.

TABLE 3. dB REFERENCE CONVERSION FACTORS

0 dB REFERENCE	CONVERSION FACTOR
1 mW, 600 Ω	None
6 mW, 600 Ω	Subtract 7.8 dB from indication
6 mW, 500 Ω	Subtract 7 dB from indication

RESISTANCE MEASUREMENTS

1. Set the range switch to the desired OHMS range.
2. Plug the test leads into the jacks.
3. Short the ends of the test leads together and adjust the OHMS ADJ control to set the pointer over the right end of the red OHMS scale (0 ohms).
4. Turn off all power to the circuit to be measured and discharge all capacitors.
5. If a single component in a circuit is to be measured, disconnect one lead from the circuit.
6. Connect the test leads to the circuit or component to be measured. OBSERVE ALL SAFETY PRECAUTIONS.
7. Read resistance on the red "OHMS" scale. NOTE: On the OHMS ranges, the + jack has the positive potential (it is connected to the + terminal of the battery).

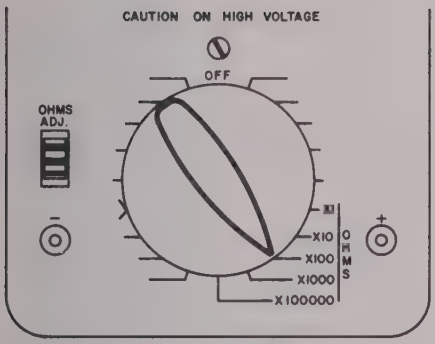


FIGURE 12. RESISTANCE MEASUREMENTS

CONTINUITY TESTING

For continuity testing, use the X1000 OHMS range. This gives longer battery life, reduces the chance of accidental damage to the V-O-M and reduces the chance of the V-O-M damaging the circuit.

MAINTENANCE

BATTERY REPLACEMENT

Batteries should be replaced whenever the OHMS ranges can't be adjusted to zero ohms. Check batteries for signs of corrosion or leakage occasionally.

To replace batteries:

1. Disconnect the test leads from external circuitry and remove them from the V-O-M jacks.
2. Remove the four screws at the corners on the back of the case.
3. Remove the case.
4. Remove the batteries from their holders and discard them.
5. Put new batteries in the battery holders. OBSERVE PROPER POLARITY. (See Figure 13).
6. Replace the case and reinstall the screws.

Replacement batteries should be carbon-zinc dry cells, NEDA 13F "D" cell for the 1.5 volt battery and NEDA 210 for the 30 volt battery.

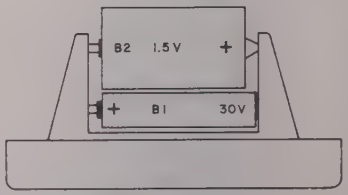


FIGURE 13.
BATTERY POLARITY

FUSE REPLACEMENT

Replacement fuses must be:

Littelfuse 3AG 1 Amp or Bussmann BBS 2 Amp for the large fuse.

A spare 1 Amp fuse is located under the 30 volt battery.

To replace a fuse:

1. Disconnect the test leads from external circuitry and remove them from the V-O-M jacks.
2. Remove the four screws at the corners on the back of the case.
3. Remove the case.
4. Remove and discard the blown fuse.
5. Put a new fuse in the fuse holder. USE ONLY THOSE SPECIFIED ABOVE.
6. Replace the case and reinstall the screws.

CLEANING

The outside of the V-O-M may be cleaned with a mild soap and water solution. Do not allow the soap and water to get inside the V-O-M.

CALIBRATION

With normal use, readjustment of this V-O-M should not be necessary. Replacement parts are designed to be installed without any need for recalibration of the V-O-M. An occasional check of the V-O-M against a known reference voltage or another V-O-M is good practice. If there is a question about the accuracy of the V-O-M, it should be returned to the factory or an authorized service center for a calibration check.

PARTS REPLACEMENT

Parts available for replacement are listed in the parts list. When replacing any parts, be careful to not disturb or damage any others. Do not overheat resistors or diodes, but be sure to make a good solder connection.

In some cases, it is wise to leave part of the lead from the old component and solder the new component to the old lead to prevent damage to surrounding components.

If there is evidence of smoke or an electrical arc inside the V-O-M, return the V-O-M to the factory or an authorized service center. There is a chance of hidden damage that could cause another failure in the V-O-M.

TROUBLESHOOTING GUIDE

SYMPTOM	POSSIBLE CAUSES
V-O-M doesn't work on any range.	Blown fuse. Broken test lead.
V-O-M can't be adjusted for zero ohms on OHMS X1, X10, X100 and/or X1000 range.	B2 (1.5V) weak.
V-O-M can't be adjusted for zero ohms on OHMS X100,000 range.	B1 (30V) weak.
Pointer rests above or below zero without any input.	Meter movement needs to be rezeroed with the ZERO ADJUSTER.
V-O-M can't be adjusted for zero ohms on OHMS X1 range. All others OK.	B2 (1.5V) weak. Wrong fuse used for replacement. Fuse resistance too high.

For repair of this V-O-M, return it to the factory or an authorized service center. To help in repairing the V-O-M, give a detailed description of the problem and any other data that might be helpful such as what kind of circuit was being measured when the problem was discovered.

If the V-O-M is damaged by an overload and there is evidence of smoke or an electrical arc inside, return it to the factory or an authorized service center for inspection and repair. There could be some hidden damage that would cause a future failure of the V-O-M.

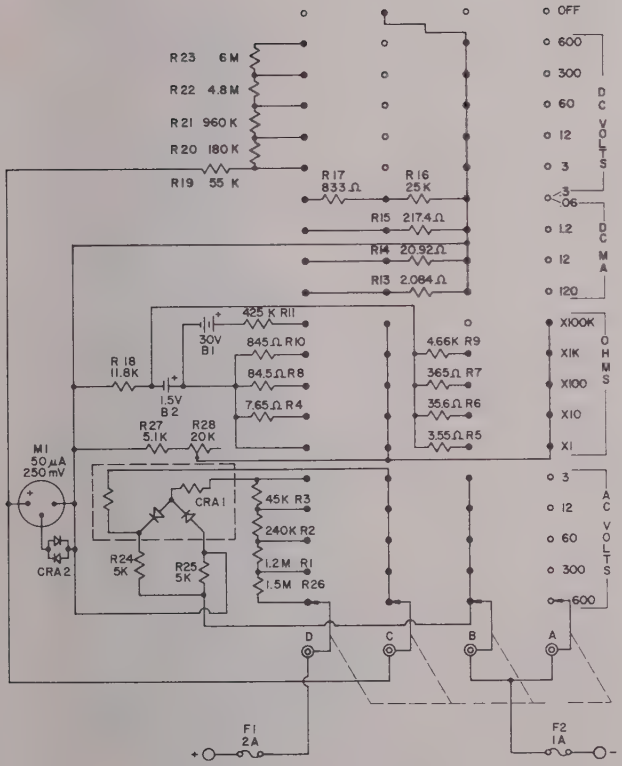


FIGURE 14. SCHEMATIC

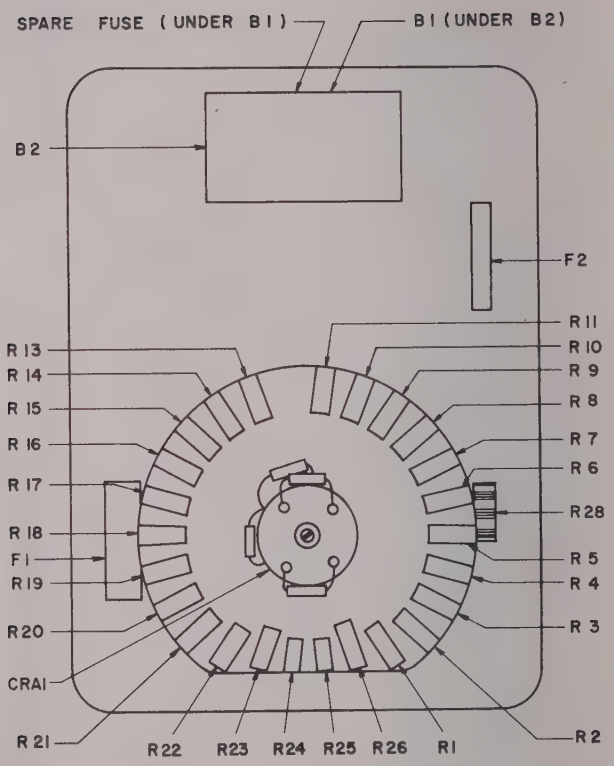


FIGURE 15. PARTS LOCATION

PARTS LIST

SYMBOL	DESCRIPTION	TRIPLETT PART NUMBER 630	630-A
B1	Battery, 30V	37-19	37-19
B2	Battery, 1.5V "D"	2426-1	2426-1
F1	Fuse, 2 Amp, 600V	3207-61	3207-61
F2	Fuse, 1 Amp	3207-15	3207-15
CRA1	Rectifier Assembly	2250-72	2250-72
CRA2	Overload Protection Assembly	11670	11670
M1	Meter with Front Panel Assembly	52-6956	52-6957
R1	Resistor, 1.2 MΩ	15K-1204TC5	15K-1204TC5
R2	Resistor, 240 kΩ	15K-2403TC5	15K-2403TC5
R3	Resistor, 45 kΩ	15K-4502TC5	15K-4502TC5
R4	Resistor, 7.65 Ω	15-5705	15-5706
R5	Resistor, 3.55 Ω	15-5707	15-5708
R6	Resistor, 35.6 Ω	15-5703	15-5704
R7	Resistor, 365 Ω	15K-3650TC5	15K-3650UC5
R8	Resistor, 84.5 Ω	15K-845FTC5	15K-845FUC5
R9	Resistor, 4.66 kΩ	15K-4661TC5	15K-4661UC5
R10	Resistor, 845 Ω	15K-8450TC5	15K-8450UC5
R11	Resistor, 425 kΩ	15K-4253TC5	15K-4253UC5
R12		NOT USED	NOT USED
R13	Resistor, 2.084 Ω	15-5709	15-1558
R14	Resistor, 20.92 Ω	15-2814	15-2813
R15	Resistor, 217.4 Ω	15-5710	15-2288
R16	Resistor, 25 kΩ	15K-2502TC5	15K-2502UC5

PARTS LIST

SYMBOL	DESCRIPTION	TRIPLETT PART NUMBER 630	630-A
R17	Resistor, 833 Ω	15K-8330TC5	15K-8330UC5
R18	Resistor, 11.8 kΩ	15K-1182TC5	15K-1182UC5
R19	Resistor, 55 kΩ	15K-5502TC5	15K-5502UC5
R20	Resistor, 180 kΩ	15K-1803TC5	15K-1803UC5
R21	Resistor, 960 kΩ	15K-9603TC5	15K-9603UC5
R22	Resistor, 4.8 MΩ	15-2436	15-1542
R23	Resistor, 6 MΩ	15-3658	15-5711
R24	Resistor, 5 kΩ	15K-5001TC5	15K-5001TC5
R25	Resistor, 5 kΩ	15K-5001TC5	15K-5001TC5
R26	Resistor, 1.5 MΩ	15K-1504TC5	15K-1504TC5
R27	Resistor, 5.1 kΩ	15R-512JC	15R-512JC
R28	Resistor, 20 kΩ Variable	16-31	16-31
	Switch with Components	22-706	22-707
	Knob	34-61	34-61
	Case with Handle	10-784	10-784
	Test Leads	79-374	79-374

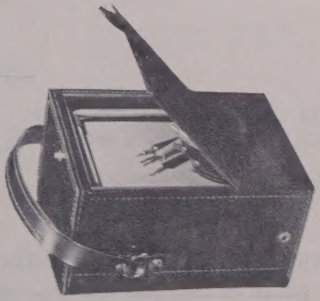
LEATHER CARRYING CASES

Black leather case, has built-in stand on back. Flaps open to permit use of tester in case. Compartment for accessories.

MODEL 639-OS

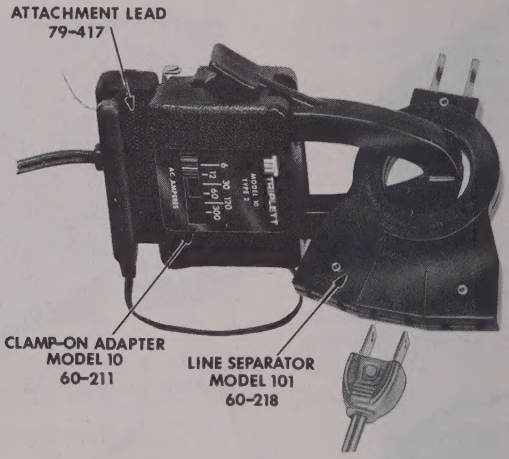
MODEL 639-N

Black cowhide leather carrying case. Stand included at no extra cost. Leather strap handle.

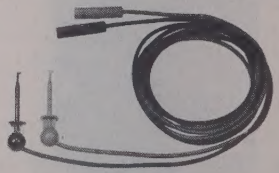


Rear view shows accessory compartment permitting free access to tester stand, leads and instructions.

AC CURRENT MEASURING ACCESSORIES



MINIATURE CLIPS FOR
HIGH DENSITY CIRCUITS



Part No. 79-373

HIGH VOLTAGE PROBES

VOLTAGE RANGE	OHMS PER VOLT	PART NO.
30 kV AC	5,000	79-398
30 kV DC	20,000	79-397
6 kV AC	5,000	79-432
6 kV DC	20,000	79-433

WARRANTY REGISTRATION CARD

COMPLETE THIS CARD AND RETURN TO TRIPLETT CORP. WITHIN 10 DAYS TO VALIDATE YOUR WARRANTY

630 (3030) 630-A (3034)

Instrument Model Number **Date of Purchase**

Purchaser's Name

Title

Purchaser's Company

Address

City **State** **Zip**

1. Purchaser's business at this location is: (check only one, please)

MANUFACTURING
- A. ☐ Electrical Construction
- B. ☐ Fabricated Metal Products (except Ordnance, Machinery & Transportation Equipment)
- C. ☐ Machinery (except electrical)
- D. ☐ Computers or Computer Peripheral Equipment
- E. ☐ Communication Equipment
- F. ☐ Consumer Electronic Equipment
- G. ☐ Electronic Components
- H. ☐ Electrical Machinery
- I. ☐ Transportation Equipment
- J. ☐ Professional & Scientific Instruments, Photographic & Optical Goods, Watches & Clocks

SERVICE UTILITIES
- K. ☐ Transportation Systems
- L. ☐ Communication Systems
- M. ☐ Electric, Gas & Other Utility Services
- N. ☐ Radio & TV Service
- O. ☐ Home Appliance Service
- P. ☐ Business Machine Service

- Q. ☐ Medicine
- R. ☐ Education
- S. ☐ Consultant
- T. ☐ Hobby
- U. ☐ Other (please specify)
- V. ☐ Heating, Air Cond. & Ref.
- W. ☐ Petroleum & Related Industries

2. The Instruments principal use will be in: (check only one, please)
- A. ☐ Research &/or Development Labs
- B. ☐ Electrical Maintenance
- C. ☐ Electronic Maintenance
- D. ☐ Quality Control
- E. ☐ Production
- F. ☐ Classroom

3. Participants in the selection of this Instrument were: (check more than one if necessary)
- A. ☐ General Management
- B. ☐ Department Management
- C. ☐ Project Management
- D. ☐ User's Supervisor
- E. ☐ User
- F. ☐ Purchasing

4. This model was selected because of its: (check more than one if necessary)
- A. ☐ Accuracy
- B. ☐ Reliability
- C. ☐ Triplett's Reputation
- D. ☐ Voltage Ranges
- E. ☐ Current Ranges
- F. ☐ Resistance Ranges
- G. ☐ Advertisements
- H. ☐ Features

5. Is this your first Triplett Tester?
- A. ☐ Yes
- B. ☐ No

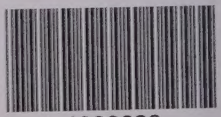
6. What other type of test equipment would you like to see Triplett make?

_____

_____

_____

www.manualsplus.com



1008628

Triplett Corporation Bluffton, Ohio 45817